THE STIMULATIVE AND CORRELATIVE VALUE OF A WELL-BALANCED COURSE IN COMMERCE AND INDUSTRY

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I. ARGUMENT FOR THE TITLE "COMMERCE AND INDUSTRY"

The title "commerce and industry" is the name which the writer prefers should be given to the subject which is usually taught in secondary schools under the name of "commercial geography." Probably this title was adopted because during the eighteenth century in European schools patronized by the trading classes there was taught, under the name of "traders' geography," a body of information concerning things "useful for a merchant to know" with special reference to trade and transportation.

This name, "commercial geography," is not a fortunate one, since the information imparted, while it has a geographical bearing, is not chiefly geographical as its title suggests.

Professor Lyde, recognized as one of the great authorities on geography, says:

> There is no essential difference whatever in the end in view, the principles involved, or the method to be used, between teaching geography from the economic point of view and teaching it from any other point of view. . . . . And it is, therefore, a cause for much regret that the teaching of the science from this point of view ever came to be called the teaching of "commercial geography."
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> I think that no other single word ever did so much harm to the teaching of any subject, for it made writers write and—still worse—teachers teach as though all the importance lay, not in the end proposed, the underlying principles, or the practical method, but in the commercial products—which are always incidental and often absolutely immaterial.[1]

Such in general is the attitude of those who are specialists in geography. They insist that the commercial elements in this

[1] L. W. Lyde, professor of economic geography, University College, London, *Teaching of Geography*, p. 19.

course be given a secondary position and that the geographic content be thorough and somewhat exhaustive. As commercial teachers, we believe that it would be of great value if all pupils doing commercial work could have a complete course in geography —mathematical, physical, political, and commercial. To those who are conversant with conditions which prevail in the making of a curriculum for a well-rounded commercial course, however, it is a well-known fact that the difficulty is not in deciding what subjects it is desirable to include, but rather in deciding which subjects must be omitted. Since all secondary-school pupils have had considerable instruction in mathematical, physical, and political geography, and since it is necessary for them to proceed with their education, it seems wise to progress into the study of commerce and the industries, giving them, however, a suggestive and rather complete review of those portions of geography which are essential as an introduction.

As far back as 1902, Edward D. Jones said: "The boundaries of the subject [commercial geography] are at present uncertain and even the precise objects to be attained in the study are under dispute."[1] The conditions thus described are to a considerable extent true of the teaching of the subject at the present time. Is it not probable that this indefiniteness would be eliminated if the title of the course were changed to that of commerce and industry? Such a change would be in accordance with the precedents as shown by the study of the curricula abroad. Although the name commercial geography sometimes appears, as translated, there also prevails a subject which is taught under several titles, the real purposes of which are clearly suggested. For instance, the commercial courses of the leading special schools abroad, as given by two authorities,[2] contain the following: "Materials of Commerce," "Technology Goods," "Technical Knowledge of Goods," "Knowledge of Merchandise," "Study of Merchandise," "Products," "Commercial Products," "Study of Products," "Knowledge of Products and Technology."

[1] Edward D. Jones, *Journal of Geography*, April, 1902, p. 151.

[2] Report of Edmund J. James to American Bankers' Association, in report of United States Commissioner of Education for 1895–96; and Cheeseman A. Herrick, *Meaning and Practice of Commercial Education*, Appendix.

The value of the present usage in the matter of the title, so far as secondary pupils are concerned, either is negative, since the title does not convey an intelligible idea of its content, or else positively militates against the course, if pupils have an antipathy to geography. The study of geography is not a popular subject with secondary-school pupils, as is evidenced by their great lack of knowledge in this subject and their frank statements regarding their lack of interest in it.

The title here suggested will make a strong appeal to those who are preparing for business vocations. A large proportion of those pupils who are doing commercial work in secondary schools are strongly inclined to feel that subjects which seem to have no direct bearing on their future occupations are not as valuable to them as subjects which, in their opinions, have such bearing.

It seems wise, more direct, and logical, in making a study of commerce and its causes, which the study of commercial geography undeniably is, to give the subject a title which has direct relation to the thing studied, rather than one which is indirect and merely deals with one of its causal elements. Although geographic facts underlie some of the present commercial conditions, several other forces are to be recognized. The title commerce and industry, therefore, is a broader, more suggestive, and more stimulative, name.

II. THE PLACE OF COMMERCE AND INDUSTRY IN THE SEQUENCE OF STUDIES

Having suggested a new title for this subject, it becomes necessary to show its proper position and relation in a properly adjusted commercial course. Quite clearly it belongs in the group which DeGarmo[1] refers to as the "economic group."

Owing to the known conditions of the first year in secondary schools, particularly the fact that a considerable number of pupils fail to go beyond this year and that those who do get into the second year usually make a serious attempt to graduate, it seems best to treat the first year in this group of studies as preliminary and foundational. When the interrelations of this group are considered

[1] Charles DeGarmo, *Principles of Secondary Education*, p. 160.

it will appear that this decision is not only conserving, but positively advantageous.

The subject for the first year should be elementary science. It should include a rather hasty and suggestive, but not an exhaustive, study of botany, zoölogy, chemistry, and physics, with special emphasis on matters relating to physical geography. This course should give a popular interpretation of, and a proper attitude toward, the numerous facts of science which have vital relation to commerce and the industries.

The second-year work in this sequence of studies should be the study of commerce and industry. As this course will be fully set forth later, it is necessary here only to prove that its proper place is in the second year. That this is the case is due to the necessity of pupils having a clear knowledge of the principles underlying physical geography, as well as an elementary knowledge of the sciences, especially of chemistry and physics, in order that they may have a clear comprehension of many of the processes used in the industries when the industries are under consideration. Having thus laid a foundation, it is wise to begin the study of commerce and industry, in order that the rather unique stimulative and correlative possibilities which the subject possesses may play their important part in the subsequent education of the pupils.

The subject in the third year of this group might well be the history of commerce. This study will furnish opportunity to humanize the body of knowledge being acquired in this sequence of subjects and to bring the students into more sympathetic and interested relations with the commercial aspects of the history of the past and the developments of the present, making them more truly intelligent and sympathetic citizens.

The capstone of this series of studies, given in the fourth year, should be economics. Here the pupils get a last view, so far as formal study is concerned, of that great body of facts, so interesting and so important, which are suggested by the thought of commerce and industry. Here commerce and the industries are studied from the standpoint of their effect upon society. The laws of production, distribution, exchange, and consumption are taken up, giving a comprehensive view of material things which affect human welfare, and which are world-wide in their influence.

III. THE PURPOSES AND CONTENT OF THE PROPOSED COURSE

The aims of this course and the results which it is expected will be obtained are as follows:

1. To furnish a causal explanation of the geographic, political, and economic facts of commerce and the industries.

2. To inculcate and develop the power of observation in matters which have a commercial bearing.

3. To furnish a large body of information relating to commerce and the industries of men, which not only will give general intelligence, but which may prove of great value in business life.

4. To enable students to become familiar with the various sources from which more complete, specific, and reliable facts may be secured when in their business careers such information may have vital relation to their business interests.

5. To enlarge the vocabularies of the pupils, thus broadening them for the related commercial subjects which lead directly to a vocation.

The following is an outline of the proposed course:

a) The study of a good textbook.

b) The keeping of home-work clipping-books.

c) The writing of formal reports, with oral reports to the class on (1) an individual visit to a leading, representative manufacturing plant; (2) visits with the class to several transportation establishments; (3) a personal investigation by each pupil of the work of one of the bureaus of the national government.

d) Attending talks and quizzes by the teacher on unfamiliar, non-local industries illustrated by lantern slides or by pictures used in a reflectoscope.

e) Studying specimens of a carefully selected collection of the materials of commerce.

f) Making graphs regarding statistical phases of industries.

If one is to follow the foregoing plan, it is necessary that the above elements of the course should be set forth in detail.

a) *The study of a good textbook.*—Such a book might be described as one which has introductory sections dealing with the three factors which explain and underlie commerce—the natural, or geographic; the human, or political; and the economic. These

introductory chapters should be followed by an extensive treatment of physical features, with some reference to geology, communication, transportation, localization and concentration of industry, government aid, and conservation of natural resources of the United States. Vegetable, animal, and mineral products should have thorough treatment as commodities of commerce, with particular reference to sources of raw materials, processes of manufacture, including references to by-products, substitutes and their effects, markets and routes, character of transportation, and influence of tariffs, if any. When the industry is of sufficient importance to permit, the localization of the industry and its chronological development should be explained. This would give a suggestive connection, which would not only stimulate interest but would become a means of assisting the memory.

Foreign countries need have but brief treatment, since the United States produces, in some measure, all but a few of the leading commodities of the world, and these few may be studied either with the countries which produce them or as imports of the United States.

This textbook work is important, as it furnishes a background and keeps students at work on systematized knowledge.

b) Probably no feature of the suggested course will yield so valuable a result to the pupils as that secured by keeping a neat, carefully planned home-work clipping-book. Here self-activity and the power of observation have free course. Thorndyke says: "In the last analysis, what scholars do, not what the teacher does, educates them; not what we give, but what they get, counts; only through their self-activity are they directly changed."[1] The plan suggested is to furnish each pupil with a good-sized, substantially covered blank book. On the left-hand pages the pupils should paste neatly, at the rate of one each week, good newspaper or magazine clippings which have a distinct commercial bearing. Each clipping will naturally be the most interesting and suggestive found in a given week. As each student is to write on the right-hand pages of this book full-page comments connected with the clippings, in his best handwriting, it will be necessary that considerable out-

[1] Edward Thorndyke, *Principles of Teaching*, p. 39.

side reading be done before these comments are undertaken. In this work the teacher has a wonderful opportunity to place before pupils that which will help to develop a spirit of research, of self-help, and an enthusiasm which will surprise instructors and prove a lasting stimulus to scholars. A collection of reference books is necessary for this work. This collection should include at least the following: the twelfth report of the Bureau of the Census (and the thirteenth as soon as available); a history of commerce, such as Day's or Webster's; a work on transportation, such as Johnson's; a work on economics, such as Bullock's or Burch and Nearing's; a work on the raw materials of commerce, such as Toothaker's; the annual reports of the secretaries of the nine departments of the national government; the reports of the Civil Service Commission, the Interstate Commerce Commission, the International Bureau of American Republics; the *World's Almanac;* and the *Statesman's Year Book.*

Experience has shown that a most valuable library can be gathered, also, by setting the pupils at work bringing in a magazine-article collection of writings which are related to commerce and the industries, government aid, invention, transportation, and allied topics. These can be lightly bound, labeled, and catalogued. If they are placed in folders within cloth-covered transfer boxes, they can be kept conveniently and compactly. Such a collection will be found to be superior to regular reference books in some respects, because they will be more up to date, more comprehensive, more interesting, and so lengthy as to make it impossible for pupils to copy them as comments on their clippings. It will be constantly growing, and obsolete articles may be withdrawn from the collection. A card index will prove of great convenience to teacher and pupils.

The tendencies and habits gained in the use of these clipping-books will be so lasting as to keep pupils interested in the progress of their country, its problems, its methods of advancement, its inventions, and thus they will be a veritable current-topics club unto themselves.

c) The first of the three formal reports suggested is designed to make pupils acquainted with local conditions as they exist in

manufacturing plants. These visits should be confined to the personal investigation of leading, distinctive, representative industries, if possible. Pupils should be given a month or more in which to investigate, visit, make notes, do supplementary reading, and write the reports. All pupils should be obliged to report orally, without notes, the results of their visits and investigations, so that their classmates may have a broad view of the whole field.

Through experience it has been learned that visits by whole classes rob the pupils of an opportunity to develop initiative, make the outlook of the class too circumscribed, as conditions at but few establishments will permit a class to see, hear, and properly understand what is occurring. Those who cannot hear will often, quite naturally, get into mischief and bring the school into disrepute. If individual visits are arranged for, proprietors will give opportunity for thorough observation, supply complete information, and frequently ask for a copy of the reports. Pupils will be greatly aided in arranging visits if a carefully worded card from the teacher is in their possession when they are planning visits.

The second formal report should be based on visits to transportation companies. These visits should be arranged for by the teacher with the officials of large corporations, because they are difficult of access. As there are no intricate processes involved and explanation of the work by someone in authority is necessary, to avoid repetition these visits should be made by the class in charge of the teacher. The individual reports of the pupils on such visits will prove helpful as a criterion of their ability to observe and of their power of expression.

Visits should be made, if possible, to a sailing vessel, a freight steamer, a passenger steamer, a grain elevator, a freight station, a freight transfer plant, and a passenger station.

The third formal report should be connected with the work of the departments of the national government. This work gives a good opportunity for individual investigation. The nine departments and three special commissions furnish ample material for over forty separate topics, as will be seen from the *Congressional Directory*. This volume, published and revised each year, can be secured from the Government Printing Office. In it will be

found the name and address of the official in charge of each bureau, who will send printed matter or answer questions. The annual reports of the secretaries of the various departments may be secured upon request, and the work of the various bureaus has been fully set forth in pamphlets which are intended for public distribution.

d) A line of effort which is supplementary to these reports is that in which the teacher gives talks on unfamiliar non-local industries of the world, illustrated by lantern slides or by pictures used in a reflectoscope. These talks can be given to the whole class, or assembled classes, and should be followed by quizzes. This will demand the pupils' attention during the talks and lead to a retention of the essential facts.

Some suggested topics are: products of agriculture, rice and wheat; products of mines, iron and coal; products of fisheries, salmon and oyster; products of forests, lumber and rubber; products of manufacturing, silk and cotton; transportation, Erie and Panama canals.

This work has value chiefly because few pupils would have first-hand knowledge of more than two of these industries. The talks on such industries, if local, could be omitted.

e) The study of specimens of the materials of commerce which show the stages of progress from the raw materials to the finished product, including the by-products, is an important part of this course. Physical progress is from the concrete to the abstract. All first knowledge comes by way of the senses, and this fact shows the necessity for object teaching wherever it can be applied. James F. Chamberlain says: "One of the prime essentials in geography is that the pupils should actually see as much of what they study as possible."[1]

Such a collection is rather difficult to secure, but is of great value when secured. This museum, classified on the basis of vegetable, animal, and mineral products, supplemented by window boxes, in which can be grown many of the plants of commerce, will prove a great stimulus to a class, in that it would gather within the reach of the class, or classes, objects which could otherwise be seen only by years of travel, and then not be appreciated.

[1] James F. Chamberlain, *Journal of Geography*, October, 1906, p. 374.

Through well-conceived letters to leading producers of commodities, and a well-chosen line of seeds, such a collection may be secured. The collection of the materials of commerce may be safely kept, easily classified, and conveniently exhibited, for the greater part, in eight-ounce bottles. In this form they are open to inspection, and may be permanently on exhibition in cases about the walls of the room in which the subject is taught, and passed to the members of the class for inspection, when advisable.

The plant collection, if properly arranged and kept in "self-watering" window boxes in southerly windows, may be watched in the germination of the seed, the development into a young plant, the flowering stage, and the maturing plant. While it is frankly admitted that there are great difficulties to be overcome in this sort of collection, particularly with tropical plants, because of the dry air of the schoolroom, enough has been accomplished to prove that eight or ten boxes, each containing about five different plants, can be successfully used. A box each of cereals, forage plants, leguminous plants, condiment-producing plants, oil-producing plants, vegetable plants, and miscellaneous plants, like tobacco, broom corn, etc., have been found practicable. Further experiments, especially with tea, coffee, cacao, etc., leave some questions of practicability unanswered.

f) The use of graphs and statistical tables in order to emphasize relative values is important and very easily accomplished, in these days of cheap base maps and numerous statistical volumes published by the national government. Such work is far more helpful, agreeable, and suggestive if pupils make their own graphs and tables from statistics, than if they are obliged to memorize statistics.

[*To be continued*]